

REMARKS

Claims 1-5 and 7-13 are pending in this application. Claims 1, 5, and 10 are independent claims. Claim 1 is amended. Claim 6 is cancelled.

REJECTIONS UNDER 35 U.S.C. §102

Claims 1-3, 5, 7-8, and 10-11 stand rejected under 35 U.S.C. §102(a) as anticipated by U.S. Publication No. 2003/0114177 ("Sinnaraja"). Applicants respectfully traverse this rejection as detailed below.

Sinnaraja is directed to a method of signaling in cellular telephone systems providing broadcast services in which a broadcast service registration is sent for each HSBS channel a subscriber station desires to monitor. For example, with reference to FIG. 3, at time t2 a subscriber station desires to monitor HSBS channel 302a and sends a broadcast service registration for HSBS channel 302a. At a later time t3, the subscriber station is no longer interested in monitoring the HSBS channel 302a, but desires to monitor the HSBS channel 302b and sends a broadcast service registration for HSBS channel 302b. HSBS channels 302a and 302b are both on frequency F_x.

In contrast, independent claim 1 has been amended to recite triggering generation of a registration message in response to a change in flow and frequency "only if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network." Independent claims 5 and 10 recite similar features. As described above, Sinnaraja describes sending a registration message each time a new HSBS channel is added, even if a change in frequency has not occurred (i.e., the frequency is already known to the network).

Thus, Sinnaraja fails to teach or suggest all the features of independent claims 1, 5, and 10, and independent claims 1, 5, and 10 are allowable over Sinnaraja. The remaining dependent claims are also allowable over Sinnaraja for at least their dependence from an allowable base claim.

Therefore, Applicants respectfully request that the rejection of claims 1-3, 5, 7-8, and 10-11 under 35 U.S.C. §102 be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over SWG23 BCMCS ADHOC: "Signaling Support for 1x BCMCS", 28 August 2003, pages 1-53 ("3G-1x-BCMCS") in view of Sinnaraja. This rejection is respectfully traversed.

The Examiner alleges that 3G-1x-BCMCS teaches a method of triggering a registration of a mobile station... "if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network," as recited in independent claim 1, and similarly recited in independent claims 5 and 10. The Examiner cites page 19, lines 21-29, and page 26, lines 8-10 and lines 35-39 in support thereof. Applicants disagree.

3G-1x-BCMCS is silent on using previous registration information from a flow identifier to determine if a given frequency is known to the network. Page 19, lines 21-29, cited by the Examiner, is directed to a procedure for performing a registration subsequent to an idle handoff between base stations, and does not teach or suggest triggering a registration message if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network. Page 26, lines 8-10 and lines 35-39, cited by the Examiner, is directed to a procedure for performing a BCMCS registration for each BCMCS flow that the mobile station is currently monitoring if the mobile station determines that this BCMCS flow is being transmitted on a different F-SCH than currently transmitted, and therefore also fails to teach or suggest triggering a registration message if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network.

Furthermore, the Examiner admits that 3G-1x-BCMCS does not explicitly teach that the triggering of generation of a registration is based on a change in frequency and a change in flow, from a first flow to a second flow and from a first frequency to a second frequency, but alleges that this feature is taught in Sinnaraja. Applicants submit that Sinnaraja is not properly combinable with 3G-1x-BCMCS.

As the Examiner is aware, a reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claims. Sinnaraja teaches

away from the feature recited in independent claim 1, and similarly recited in independent claims 5 and 10, that the registration message is generated “only if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network.”

Sinnaraja discloses that “registration is performed [by the subscriber station] periodically in accordance with a status of a timer for a particular HSBS channel” [pg. 7, paragraph 63]. In addition, “when the base station receives a broadcast service registration from the subscriber station... [the] base station adds the HSBS channel identifier (HSBS_ID) to the paging set... and starts a counter [timer]“ [pg. 7, paragraph 66]. Sinnaraja goes on to state that:

“[T]he timer at the subscriber station and the timer at the base station must be synchronized or the timer at the base station must not expire before the timer at the subscriber station expires. If the timer at the base station expired before the timer at the subscriber station expired, the base station would remove the HSBS_ID=i from the paging set, while the subscriber station could still be at the HSBS channel.” [pg. 7, paragraph 66].

Thus, sending a registration message each time the subscriber stations desires to monitor a new HSBS channel, even if there is no change in frequency, is essential to start the timer/counter at the base station, which ensures synchronization of the base station and subscriber station timer/counters. Sinnaraja therefore teaches away from generating a registration message only if the second frequency is not known to the network based on a first flow identifier information previously registered by the mobile station with the network. Doing so would prevent newly added HSBS channels on the same frequency as a previously monitored HSBS channel (for example, 302(b) being added to 302(a)) from having corresponding subscriber and base station timer/counters synchronized.

For at least such reasons, independent claims 1, 5, and 10 are allowable over 3G-1x-BCMCS in view of Sinnaraja. The remaining dependent claims are also allowable at least for their dependence from an allowable base claim:

Therefore, Applicants respectfully request that the rejection of claims 1-13 under 35 U.S.C. §103 be withdrawn.



CONCLUSION

In view of the above remarks and amendments, Applicants respectfully submit that each of the rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Pursuant to 37 C.F.R. §1.17 and 1.136(a), Applicant(s) hereby petition(s) for a one (1) month extension of time for filing a reply to the outstanding Office Action and submit the required \$120.00 extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Gary D. Yacura at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
HARNESS, DICKEY, & PIERCE, P.L.C.

By


Gary D. Yacura, Reg. No. 35,416

P.O. Box 8910
Reston, Virginia 20195
(703) 668-8000

GDY/SAD:ald